

# SUMMARY

OF THE

## IMPROVEMENTS AND DISCOVERIES IN THE MEDICAL SCIENCES.

### GENERAL ANATOMY AND PHYSIOLOGY.

1. *Case of Natural Somnambulism.*—The following case of natural somnambulism is sufficiently interesting in itself to deserve notice, but it becomes doubly so, when viewed in connection with the curious case of double consciousness, recorded in the original department of this No. (p. 49.) These two conditions, seem to us, to belong to the same order of phenomena, as do also probably the Mesmeric condition. It is only by carefully observing and comparing all these states that we can ever hope to remove the thick veil by which for the most part, the functions and pathological conditions of the nervous system are now enveloped.

Madame Flambeau of Vaucouleurs has, for about six years, exhibited the most remarkable phenomena of natural somnambulism. She is 21 years of age, of middle height, agreeable appearance and extreme timidity. She was married at 17 years of age, and the year following had a daughter, who enjoys excellent health.

The first act of somnambulism observed in Madame F. was when she was in her 15th year. She was then at boarding-school, and learning music; notwithstanding all her endeavours, she could not fix in her mind a certain romance and its accompaniment; what was her astonishment one morning to find that she knew both the words and the music perfectly! The preceding night she had been observed by her schoolmates, to rise and dress herself, and she had spent two hours in practising and repeating the song.

Dr. VERNER, the relator of this case, was first called to Madame F. on the 9th of August, 1836. She had suffered for some time previously to this period from *intolerable pain in the head*, of a somewhat remittent character. From this she was relieved by loss of blood, and sulphate of quinine.

Dr. V. had then an opportunity of inquiring into the foundation of the rumours afloat in the place, relative to this lady being subject to somnambulism. Her husband who had endeavoured to conceal the circumstance, acknowledged its truth to Dr. V.

The lady rose every night regularly between twelve and one o'clock, left her chamber, walked out, returned, and conversed. Her husband, at first, paid little attention to this; but having soon become convinced that his wife was a somnambulist, he took the necessary precautions to prevent her leaving her chamber; and one night he shut and locked the chamber door, and, having hid the key, he went to sleep in security. But at the usual hour, his wife rose, sought for and found the key, opened the door, and went out as usual. In one of these nocturnal excursions she took a pot of butter from the kitchen and concealed it on the roof behind a chimney. The next day, and subsequently she complained

of its having been stolen. Sometime afterwards she returned it to its former place.

Some days after this, she put on during the night her ball dress, and perfectly dressed and asleep, sallied forth at two o'clock in the morning, traversed a part of the town, returned, and went to bed as if it were her usual time for retiring.

Another night she left her house about two o'clock in the morning, walked through the streets in her chemise, and seated herself on a bench opposite to her dwelling. At this moment a carter passed with his vehicle, and seeing her, took her for a ghost and struck her a severe blow with his whip. The pain awakened her, and made her scream out, but she instantly relapsed into her state of somnambulism, and returned home sobbing and went to bed to her husband. The next day, there was a weal, painful, red and swollen, around her body from one breast to the other, attesting to all but herself, the reality of her apparition in the street. The cartman was distressed at his mistake.

Another night she went to the hospital at the same hour, and after having rung loudly, she conversing with the sister of charity, who knew her situation, and had opened the door for her, as if she were awake; afterwards having asked for sister Regis to whom she was taken, she sat down, held a long conversation with her, speaking very seriously, and, finally, allowed herself though reluctantly to be led home.

One night she went in her chemise to the hospital and rung; whilst waiting for admittance, she was seen by an opposite neighbour, who seeing her clothed in white, took her for a ghost, and having crossed himself, endeavoured to drive her away, by abusing her from a distance and threatening her. Surprised at this unusual language, she became frightened and fled, disappearing like a shadow, and leaving the exorciser persuaded that it was the spirit of a young man who a few days previously had fled from the hospital.

Many nights she walked in her chemise in the burial place, to the great alarm of credulous persons.

Finally, her nocturnal excursions becoming very frequent, and endangering her life, her husband was strongly urged to have a strict watch kept over his wife. To prevent her walking out, her husband now adopted the expedient of locking the chamber door, and taking possession of the key. The first night he did this, our somnambulist, after having in vain searched for the key, opened the window, and jumped from a height of fifteen feet into the street. The shock was violent, and occasioned severe pain in her head and right side. She awoke for a few minutes, then relapsed into her state of somnambulism, entered her house, and with difficulty got up stairs, and knocking at the door of her chamber awakened her husband, who was not a little alarmed at seeing the window open, and finding his wife at the door, with one foot bare, and the other with a slipper on covered with mud. Three or four times afterwards, Madame F. notwithstanding the precautions taken, jumped from the window in her sleep. In consequence of these violent shocks, her health became impaired so seriously that she was compelled to keep her bed.

She had a constant pain in the right side of her head; she was attacked many times daily, and at irregular times, with such violent nervous paroxysms, that three or four persons could not hold her. She was during this period, entirely delirious. The hepatic region was sensitive and very painful on pressure, pulse frequent and full; face jaundiced; irregular, alternate chills and heat; and her skin appeared alternately pale and red. Dr. Verdet was called to the patient, and immediately bled her copiously, had her put into a bath, and ordered an antispasmodic draught. The next day forty leeches were applied to the region of the liver and this part afterwards covered with emollient cataplasms; the bath was repeated. Subsequently, the pain in the right side of the head, being the predominant symptom, leeches were applied to the angle of the jaw and behind the ear of this side; and leeches were again applied to the region of the liver. Notwithstanding this energetic treatment, the violence of the disease did not decrease. So great was the sensibility of, and tumefaction of the hepatic region that her physicians did not doubt but that suppuration was taking place there.

Assafoetida was afterwards given in pills and in eoemata, to calm the nervous symptoms, but without any benefit.

One morning in visiting the patient, to her physician's surprise, he found the right hypochondrium soft, and not the least painful on pressure. The patient stated that the previous night she had been attacked with a violent colic, had two very copious and fetid stools, and from that moment, the pain had disappeared.

From this period, the abdominal symptoms gradually ceased, but the nervous phenomena continued. After a long and tedious convalescence, the treatment during which is not given, the patient's health is said to have become re-established.

The patient, however, continues to be a somnambulist, but she does not endeavour to jump out of the window. She rises, lights a candle and the fire, tries to get out, but finding the doors locked, she either goes to her spinning wheel, or returns to bed. It is remarkable that she never rises more than once in any one night.

The following is related as her last act of somnambulism. Her niece, Abbe T. was about giving a feast to the clergy. He desired the table to be laid the night before, in order to prevent his servants being hurried the day of the feast. This was neglected. Our somnambulist arose at midnight, and though she was ignorant of where most of the articles were placed in her uncle's closet, she arranged the table in the most perfect manner; she did not even forget to place before each guest, a common wine glass and a claret glass. She cut also the bread, and placed a piece in each napkin. All this was done without noise, without crowding, or breaking any thing; after completing the arrangement she returned to her bed. The surprise was general.

The domestic who slept in the same room with Madame F. informed Dr. V. that when the latter got up, and was interrogated as to her designs, she answered tartly and almost angrily; she had her eyes open and fixed, and often resorted to flattery to obtain what she desired.—*Bulletin Gen. de Therap.*

2. *Observations on the Fluid of the Vesiculæ Seminales of Man.*—Dr. JOHN DAVY, with the view of throwing light on the nature of the fluid of the vesiculæ seminales of man, there being still a difference of opinion among physiologists, as to whether the fluid in question is secreted by the testes or vesiculæ, has examined the fluid in the vesiculæ, and in the vasa deferentia, after death, in a variety of cases, in the General Military Hospital at Fort Pitt, and in a communication published in the *Edinburgh Med. and Surg. Jour.*, for July last, he details the results of twenty of these examinations, and the inferences deducible from them. The latter are as follows:

"The first inference that appears to me unavoidable is, that the *vesiculæ* are seminal reservoirs, according to the old opinion on the subject, and that which is still most commonly entertained by the continental physiologists. And next, that they are not merely reservoirs, but are also secreting organs, furnishing mucus, and perhaps some other fluid, for admixture with the semen.

"The first inference is supported by the general resemblance, in several cases, of the fluid of the *vasa deferentia* and of the *vesiculæ*, and of the existence of the characteristic spermatie animalcules in the fluid of the *vesiculæ*, in every instance in which they were detected in the fluid of the *vasa deferentia*.\*

"The second inference is supported by there being a certain difference in almost every case between the fluid of the *vesiculæ* and that of the *vasa deferentia*, and especially by the circumstance, that the difference of quality is most perceptible

\* I may add, that I have observed spermatie animalcules in the vesiculæ of the ram and bull, precisely similar to those found in their testes and *vasa deferentia*; and if I recollect rightly, they have been detected in the vesiculæ of some other animals by MM. Prevost and Dumas. Whether the vesiculæ of certain animals, however, have not a specific use, distinct from that of being merely reservoirs, appears to be deserving of further and special inquiry.

ble in the fluid of the fundus—where most out of the way of being readily mixed with the fluid of the testes. What the exact difference of qualities is between the fluid of the vesiculæ and of the *vasa deferentia*, and, it may be added, of the *vasa deferentia* and of the testes, in perfect health, remains to be ascertained. It can be determined only by careful examination and comparison in the instances of criminals who have been executed, or of persons who have been killed by accident, not labouring under chronic disease, and in the vigour of life. I am disposed to think that the difference will not be found very considerable, and that between the fluid of the vesiculæ and of the *vasa deferentia*, it will consist chiefly in the former being more dilute and perhaps more bland and mucous."

"Relative to the effects of disease on the fluid of the *vesiculæ seminales*, and on the spermatic fluid generally, the instances brought forward are too few to admit of extensive induction. They seem to show, 1st, That chronic wasting diseases, terminating in death, arrest the secretion of the testes, or the production of those animalcules, on which, there is much reason to infer, the active power of the semen depends; 2dly, That the contents of the vesiculæ and *vasa deferentia*, under the influence of disease, retain longer their characteristic qualities than the contents of the tubuli; and, 3dly, That there is least fluid in the vesiculæ and in the *vasa deferentia*, and that it is most altered in instances of chronic diseases of the abdominal viscera, and especially of the intestines.

"Admitting that spermatic animalcules are characteristic of and essential to healthy spermatic fluid, in certain doubtful criminal cases, probably, decisive evidence may be obtained by means of microscopical examination. The spermatic fluid undergoes change rapidly when exposed to the air, and even soon becomes putrid: but the spermatic animalcules, I find, resist change in a remarkable manner. In one instance, distinct remains of these animalcules were observed in putrid fluid, which had been kept ten weeks, at a temperature varying between 50° and 60° of Fahrenheit. In another instance, some fluid of the vesiculæ was applied to linen, and wrapped in paper and put by in a close drawer. It was examined the following day; at the end of a week, and after eighteen days, and each time animalcules were discovered under the microscope. The mode of making the trial was by saturating a small portion of the smeared linen with a few drops of water, and gently pressing out a drop for the experiment. Fragments of the animalcules were very distinct, and sufficiently characteristic; and on careful inspection, an entire animalcule, here and there, was observed. The application of these facts to the purposes of evidence does not require any comment."

3. *On the Veins of the Uterine Decidua.*—Dr. ROBERT LEE says that he has examined many ova which have been expelled from the uterus in the third month of pregnancy, and in all of them he has observed the openings in the decidua reflexa, described by Dr. Wm. Hunter, near the angle where it joins the uterine decidua. Those openings, he says, are of an oval shape, with smooth margins, and they always pass obliquely through the membrane. If a blow-pipe be inserted into one of these, the interstices of the villi of the chorion and placenta are all readily inflated, and the air soon begins to escape freely from all the other apertures in the decidua reflexa, around that opening into which the blow-pipe had been inserted. If a tube with mercury be introduced into one of these apertures in the decidua reflexa, all the interstices of the villi of the chorion and placenta are likewise readily filled, and the mercury afterwards begins to escape from the numerous openings on the surface of the decidua reflexa. The same thing happens if air or mercury be first made to enter the interstices of the placenta, or villousities of the chorion. These circumstances render it probable that by means of the apertures, in the decidua reflexa, which resemble venous canals, there exists a free communication between the interstices of the chorion, and the cavity formed between the decidua vera and reflexa, and that the maternal blood circulates through these. This is rendered still more probable from the fact, that in the greater number of ova, blood in a coagulated and fluid state is found in the interstices of the villi of the chorion, and that by slight pressure the blood

flows readily through the smooth openings in the surface of the decidua reflexa. More or less blood is also found in all cases in the cavity of the deciduous membranes, where these have not been lacerated in the process of expulsion. This fact was pointed out by Breschet and Velpeau many years ago.

The inner surface of that portion of the uterine decidua corresponding with the decidua reflexa is smooth, and is also perforated with a great number of small, oval-shaped apertures. These openings in the uterine decidua are found to communicate with smooth canals, which run obliquely in the membrane towards the uterine surface, and there terminate in larger openings, of an oval form, with thin valvular-like edges. These canals in the uterine decidua have other smaller canals opening into them as they proceed enlarging, towards their termination on the uterine surface. Air or mercury passes readily from the inner to the outer surface, along these canals, in the uterine decidua.

In many of the ova which I have examined, I have observed the little bags described by Dr. Montgomery, on the outer surface of the decidua vera. On opening these bags, their inner surface is almost always smooth, resembling the inner surface of the uterine decidua, and in several specimens I have observed at the bottom of these sacs, a small smooth aperture communicating with the oblique canals above described in the decidua. Air or mercury introduced into these bags, has passed freely into the canals, and escaped through the openings on the inner surface of the decidua. If a blow-pipe be introduced into one of the apertures on the smooth inner surface of the decidua, the oblique canals in the membrane can all be readily inflated, and the air escapes on the uterine side through the openings in the bags, and through other openings in the membrane. In one instance, what seemed to be a small coagulum of blood filled one of these sacs.

The following is the interesting description which Dr. Montgomery has given of these cup-like elevations in the uterine decidua, and which I am disposed to regard as the terminations of those dilated decidual veins which convey the maternal blood from the cavity formed between the decidua, into the veins of the uterus:—

“Repeated examinations have shown me that there are, on the external surface of the decidua vera, a great number of small cup-like elevations, having the appearance of little bags, the bottoms of which are attached to or imbedded in its substance; they then expand or belly out a little, and again grow smaller towards their outer or uterine end, which, in by far the greater number of them, is an open mouth when separated from the uterus; how it may be while they are adherent, I cannot at present say. Some of them which I have found more deeply imbedded in the decidua, were completely closed sacs. Their form is circular, or very nearly so; they vary in diameter, from a twelfth to a sixth of an inch, and project about the twelfth of an inch from the surface of the decidua. Altogether, they give one the idea of miniature representations of the suckers of the eottle-fish. They are not confined to any one part of the surface of the decidua, but I think I have generally found them most numerous and distinct on those parts of it which were not connected with the capillary rudiments of the placenta, and at the period of gestation which precedes the formation of the latter as a distinct organ; they are best seen about the second or third month, and are not to be found at the advanced periods of gestation.”

Dr. Montgomery has added the following note to these observations:—“I confess I am not prepared (nor, indeed, is this the place) to offer any very decided opinions as to the precise nature or use of these decidual cotyledons, for to that name their form, as well as their situation, appears strictly to entitle them; but from having on more than one occasion observed within their cavity a milky or chylous fluid, I am disposed to consider them reservoirs for nutrient fluids separated from the maternal blood, to be thence absorbed for the development of the ovum. This view seems strengthened when we consider that at the early periods of gestation the ovum derives all its support by imbibition, through the

connection existing between the decidua and the villous processes covering the outer surface of the chorion.”\*

If the preceding account of the decidual veins be correct, it appears that the circulation in the human ovum in the third month of gestation is carried on in the following manner:—The maternal blood is conveyed by the arteries of the uterine decidua into the interstices of the placenta and villi of the chorion. The blood which has circulated in the placenta is returned into the veins of the uterus by the oblique openings in the decidua covering the placenta. The blood which has circulated between the villousities of the chorion passes through the openings in the decidua reflexa into the cavity between the two deciduous membranes, from whence it is taken up by the numerous apertures and canals above described in the uterine decidua, and so passes into the veins of the uterus.—*London Medical Gazette*, Dec. 1838.

4. *On the Venous Circle of the Mammary Areola.*—In dissecting the mamma, Professor SEBASTIAN had frequently observed a filament beneath the areola, apparently describing a circle round it; but being unable to procure the gland of a woman giving suck, he for a long while deferred the investigation of its nature. However, by boiling an empty mamma for twenty-four hours, the close cellular tissue of the organ was so effectually loosened, that an excellent substitute for the full gland was obtained. By examining it he satisfied himself that underneath the skin of the female areola a circle exists, which usually surrounds the greatest part of the base of the nipple at the distance of a line and a half from it. In some cases instead of being circular it is angular, its angles giving origin to branches running towards the circumference of the areola; other smaller twigs ascend from it into the nipple itself. Its vascular and venous nature was proved by injection. The circle exists in the male also, though in him it exhibits a somewhat different form. This anatomical fact has altogether escaped the notice of modern observers, at least no mention is made of it by Meekel, Cloquet, Weber, Lenhossek, &c. The indefatigable Haller, however, distinctly described it in his *Elements of Physiology*, vol. vii. sect. 1. Sebastian proposes in consequence that it be called Haller's circle. As to its use, he believes that it has much to do with the erection of the nipple. Hitherto that part of the breast has been referred to the class of erectile tissues, more on account of its exhibiting the phenomenon of erection, than from anatomical demonstration of its structure. But when the venous circle becomes turgid from being filled with blood, and at the same time the venules forming communications between it and the nipple are filled, the whole apparatus must push up and cause the erection of the nipple.”—*B. & F. Med. Rev.* Jan. 1839, from *Tydsch. voor Natuurl. Gesch.* 11 Deel, 3 S.

5. *On the accessory Supra-Renal Capsules.*—By Professor SEBASTIAN.—“In the body of a woman who died of general dropsy, with tubercular disorganization of the kidney, I discovered, attached to one of the supra-renal capsules, corpuscula of a different shape from that of the capsule itself, not more than a line and a half broad, but of the same colour and structure as that organ. There were evident fibres in the cortical substance and internally a distinct cavity. These characters justify me in considering the bodies described as supernumerary capsules. They could scarcely be looked on as lobes of the principal gland, as they were only united to it by loose cellular membrane. I never felt persuaded of the close relation of the supra-renal capsules to the lymphatic, but have always felt inclined to refer its function to the vascular system. To me the vein issuing from it appears to fill the office of an excretory duct, and to convey either a material secreted from the arterial blood, or that fluid itself modified in its properties, and destined for the improvement of the venous blood. The great size of the organ in the fœtus is thus accounted for, as also the peculiar

\* An Exposition of the Signs and Symptoms of Pregnancy. By W. F. Montgomerie, M. D. London, 1837. P. 134.

disposition of the vein itself, which is such that by it the whole gland is easily distended. Thus too is explained the fact, that in diseases of the venous system these glands are not unfrequently found either increased in bulk or otherwise unhealthy. According to this view, therefore, the capsules would act the part of a placenta. I have not discovered any distinction between the globules of the supra-renal and renal veins.—*Ibid.*

## PATHOLOGICAL ANATOMY AND GENERAL PATHOLOGY.

6. *Exostosis of the Pelvis of unusually rapid growth.*—The following example of this was related by WM. LAWRENCE, Esq., the distinguished surgeon of St. Bartholomew's Hospital, in a recent clinical lecture.

Mary Petit, thirty years of age, has gained her livelihood by selling fruit in the streets, and has led an intemperate life. About six weeks before she came to the Hospital she observed that the veins of the right leg were swollen, and she attributed the circumstance to over exertion. Soon after, a tumour, the size of a nut appeared in the situation of the femoral absorbent glands on the same side; it did not prevent her from following her occupation. As the swelling increased, and became painful, especially on exertion, she applied at the hospital, and was admitted on December 21, 1837. At this time the veins of the right lower extremity were varicose in a slight degree, and there was a tumour in the bend of the thigh not larger than a pullet's egg. Being of oval figure, with slight irregularities of surface, it was considered to be an enlargement of the femoral glands. It was free from redness, and not painful on pressure; yet the patient complained of considerable uneasiness in the part.

The Ung. Potassæ Hydriodatis to be rubbed on the swelling.

29th.—Great pain in the swelling.

Ten leeches; linseed poultice.

Jan. 1st, 1838.—The tumour is larger, and so painful as to prevent rest at night. The limb is œdematous.

Four grains of Potassæ Hydriod. in two ounces of Decoct. Sarsap. Co. three times daily. One-third of a grain of Muriate of Morphine every night.

9th.—The limb more swelled, with increase of pain.

The dose of Morph. Mur. increased to half a grain. An ointment, consisting of Cerat. Cctac.  $\mathfrak{z}$ ss., with Pulv. Opii,  $\mathfrak{z}$ j. to be rubbed on the swelling in the thigh night and morning.

The tumour increased rapidly, and became more and more painful. Having been at first movable like a glandular swelling, it became fixed, and extended along the inside of the thigh, in the direction of the pubes and ischium, forming a large mass, of firm feel, not painful on pressure, filling up the space between the pelvis and the thigh. In the early part of April, the growth was found to extend behind the abdominal muscles, towards the cavity of the pelvis. It continued to increase rapidly, both on the outside and inside of that cavity, its growth being attended with correspondent general swelling of the limb.

On May 1st, the tumour, which is hard and incompressible, has stretched across the pelvis to the left side of the body; and the left leg begins to swell. On May 17th, it had nearly reached the umbilicus. Her sufferings were constant and acute, and only imperfectly relieved by opiates; her strength was thus exhausted, and dyspnoea came on in June, when she was so reduced and enfeebled, that death was expected daily. She lingered till July 1st.

Neither local nor general means had the slightest effect on the complaint. The treatment consisted in the free use of opiates, particularly of the muriate of morphine, and in the allowance of such nutritious diet and cordials, including animal food, sago, porter, and wine, as the weakness required, and the appetite would admit of.

The disease consisted of an enormous mass growing from both sides of the pubes and ischium, extending downwards to the groin and inside of the thigh,